

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-82 (Canceled)

83. (Currently Amended) A stent assembly comprising:

an expandable stent and a delivery system;

[[an]]said expandable stent having a length and having a plurality of longitudinally spaced, networked segments extending along a first end portion, a second end portion, and a central portion disposed between said first and second end portions and including a mid-point along the length, with said first end portion, said second end portion and said central portion defining a longitudinal axis along the length of said stent;

said first end portion comprising at least a first one of said longitudinally spaced, networked segments at a first terminal end of the stent having a first lattice structure when the stent is expanded to a radially expanded condition;

said second end portion comprising a second one of said longitudinally spaced, networked segments having a second lattice structure when the stent is expanded to the radially expanded condition; and

wherein said first and second lattice structures are different;

said central portion comprising at least a third one of said longitudinally spaced, networked segments having a third lattice structure when the stent is expanded to the radially expanded condition;

said third lattice structure is substantially similar to said second lattice structure;

said first lattice structure comprising a first circumferentially undulating pattern with a plurality of first strut segments wherein a circumferential array of M first end crowns is formed between adjacent first strut segments with said first undulating pattern having a first amplitude between adjacent first end crowns and a first inter-crown distance between facing sides of adjacent first end crowns;

said second lattice structure comprising a second circumferentially undulating pattern with a plurality of second strut segments wherein a circumferential array of N second end crowns is formed between adjacent second strut segments with said second undulating pattern having a second amplitude between adjacent second end crowns and a second inter-crown distance between facing sides of adjacent second end crowns;

N is greater than M;

said first amplitude is greater than the second amplitude;

said first inter-crown distance is greater than the second inter-crown distance;

said delivery system having a distal end portion and a proximal end portion;

wherein said expandable stent is located along the distal end portion of the delivery system in a radially collapsed condition and is expandable by the delivery system from the radially collapsed condition to the radially expanded condition; and

wherein the radially expanded condition comprises a substantially tubular structure along the length.

84. – 87. (Cancelled)

88. (Currently Amended) The stent assembly of claim ~~[[84]]~~83, wherein N is greater than about twice M.

89. (Currently Amended) The stent assembly of claim ~~[[84]]~~83 wherein:

~~said first lattice structure comprises a first circumferentially undulating pattern with a plurality of first strut segments wherein said circumferential array of M first end crowns is formed between adjacent first strut segments with said first undulating pattern having a first amplitude;~~

~~said second lattice structure comprises a second circumferentially undulating pattern with a plurality of second strut segments wherein said circumferential array of N second end crowns is formed between adjacent second strut segments with said second undulating pattern having a second amplitude; and~~

~~—— wherein said first amplitude is about twice said ~~[[and]]~~ second amplitude amplitudes are different.~~

90. (Currently Amended) The stent assembly of claim ~~[[84]]~~83, wherein:

said first lattice structure comprises a circumferentially undulating pattern with a plurality of strut segments wherein said circumferential array of M first end crowns is formed between adjacent converging strut segments; and

at least one of said first end crowns comprises a curvilinear bulb-shaped member extending longitudinally and circumferentially from respective ends of two converging strut segments.

91. (Previously Presented) The stent assembly of claim 90 wherein each of said first end crowns comprises a curvilinear bulb-shaped member extending longitudinally and circumferentially from respective ends of two adjacent converging strut segments.

92. (Currently Amended) The stent assembly of claim ~~[[84]]~~83, wherein in ~~[[a]]~~the radially expanded condition:

~~said circumferential array of M first end crowns have a first inter-crown distance between facings sides of adjacent first end crowns;~~

~~said circumferential array of N second end crowns have a second inter-crown distance between facings sides of adjacent second end crowns; and~~

~~wherein said first inter-crown distance is about twice ~~[[and]]~~ said second inter-crown distanceddistances are different.~~

93. (Currently Amended) The stent assembly of claim 83, wherein said stent assembly is adapted to be delivered by the delivery system to a location in a lumen, and further comprising:

a bioactive agent coupled to the stent assembly;

~~said first end portion adapted to be the proximal end portion of said stent assembly;~~

~~—said second end portion adapted to be the distal portion of said stent assembly;~~
and

wherein said first end portion is adapted to deliver a lower density therapeutic dose of the bioactive agent ~~over a denser pattern~~ to tissue at said location of said lumen ~~then~~ than said second end portion and said central portion.

94. (Currently Amended) A stent assembly for implanting at least two stents in overlapping configuration at a location within a lumen, comprising:

first and second delivery systems each having a proximal end and a distal end that is adapted to be positioned at a location within a lumen;

first and second substantially similar stents, each with a length extending between first and second opposite ends, and having a plurality of longitudinally spaced, networked segments extending between the first and second ends including along a first end portion that terminates in the first end, a second end portion that terminates in the second end opposite the first end, and a central portion disposed between said first and second end portions and including a mid-point of the length;

said first end portion, said second end portion and said central portion defining a longitudinal axis along the length of each of said stents;

each of said first end portions having a first lattice structure that is different than a second lattice structure along the corresponding [[central]]second end portion and that is also different than a third lattice structure along the corresponding [[second end]]central portion;

said first stent [[is]]being mounted on the distal end of said first delivery system with said first end portion located proximally of said second end portion;

said second stent [[is]]being mounted on the distal end of said second delivery system with said first end portion located distally of said second end portion;

each of said first and second stents [[having]]being mounted on the respective delivery system in a radially collapsed condition for delivery to said location;

wherein at said location each of the said first and second stents [[are]]is adjustable by the respectively mounted delivery system from the respective radially collapsed condition to a radially expanded condition; and

wherein the first and second delivery systems are configured to deliver and implant the first and second stents at the location in series over a common placed guidewire in the lumen, with the respective stents in opposite respective longitudinal orientations and in an overlapping configuration with the respective first end portions overlapped at an overlap region and the respective second end portions extending

away in opposite relative longitudinal orientation from the overlap region, and such that said overlapping configuration comprises a substantially tubular structure along a length extending between the second opposite ends of the respectively overlapped stents.

95. (Previously Presented) The stent assembly of claim 94 wherein:

said first lattice structure comprises a first circumferentially undulating pattern with a plurality of first strut segments wherein said circumferential array of M first end crowns is formed between adjacent first strut segments with said first undulating pattern having a first amplitude;

said second lattice structure comprises a second circumferentially undulating pattern with a plurality of second strut segments wherein said circumferential array of N second end crowns is formed between adjacent second strut segments with said second undulating pattern having a second amplitude; and

wherein said first and second amplitudes are different.

96. (Previously Presented) The stent assembly of claim 94 further comprising:

a bioactive agent in association with said first and said second stent;

said respective first end portions are adapted to elute said bioactive agent according to a first elution profile;

said respective second end portions are adapted to elute said bioactive agent according to a second elution profile;

said respective central portions are adapted to elute said bioactive agent according to a third elution profile; and

wherein said first elution profile is substantially less than either the second or third elution profile.

97. (Cancelled)

98. (Currently Amended) The stent assembly of claim ~~[[97]]~~94, further comprising:

a bioactive agent in association with said first and said second ~~[[stent]]~~stents such that said bioactive agent is eluted with an elution profile at the overlap region that is substantially less than double an elution profile along the respective second ~~second~~ and central portions of the first and second stents.

99. (Currently Amended) A stent assembly comprising:

a stent having a length between first and second opposite ends and having a first end portion that terminates in the first end, a second end portion that terminates in the second end, and a central portion disposed between said first and second end portions and that includes a mid-point along the length, and also with said first end portion, said second end portion, and said central portion defining a longitudinal axis along the length of said stent;

a bioactive agent coupled to said stent;

a first elution profile along that portion of the longitudinal axis defined by the first end portion;

a second elution profile along that portion of the longitudinal axis defined by the second end portion;

a third elution profile along that portion of the longitudinal axis defined by the central portion; and

wherein the first elution profile is greater than the third elution profile thereby the stent exhibits a gradient of elution profile with respect to the bioactive agent ~~along the length~~ between the two opposite ends of the stent.

100. (Previously Presented) The stent assembly according to claim 99, further comprising:

said first end portion having a circumferential array of first end crowns; and
one or more enlargements on said first end crowns.

101. (Previously Presented) The stent assembly according to claim 100, wherein said enlargements are partially circular bulb-shaped enlargements extending from said first end crowns in a longitudinal direction away from said central portion.

102. (Previously Presented) The stent assembly according to claim 100, wherein said enlargements are partially circular bulb-shaped enlargements extending from said first end crowns in a longitudinal direction toward said central portion.

103. (Previously Presented) The stent assembly according to claim 99 wherein:

said first end portion has a first scaffolding pattern;

said second end portion has a second scaffolding pattern;
said central portion has a third scaffolding pattern; and
wherein said first scaffolding pattern is denser than said third scaffolding pattern.

104. (Previously Presented) The stent assembly according to claim 103, wherein:
said first scaffolding pattern comprises a first series of undulations having a first frequency and oriented circumferentially about said stent assembly;
said second scaffolding pattern comprises a second series of undulations having a second frequency and oriented circumferentially about said stent assembly;
said third scaffolding pattern comprises a third series of undulations having a third frequency and oriented circumferentially about said stent assembly; and
wherein said first frequency is greater than said third frequency.

105. (Currently Amended) A stent assembly comprising:
a stent having a length between first and second opposite ends and having a first end portion that terminates in the first end, a second end portion that terminates in the second end, and a central portion disposed between said first and second end portions and that includes a mid-point between the two opposite ends, and also with said first end portion, said second end portion, and said central portion defining a longitudinal axis along the length of said stent;
said stent being made of a non-superelastic, non-shape memory metal alloy;
said stent having a radially collapsed condition with a collapsed diameter, for delivery to a location within a lumen, said collapsed diameter being plastically deformed from an initial condition having an initial diameter;
wherein at said location said stent is expanded by the application of force from said collapsed diameter to a radially expanded diameter that is greater than the collapsed diameter; and
wherein said initial diameter has a value that is closer to said expanded diameter than to said collapsed diameter.